

Highway Dept -

Commonwealth of Pennsylvania.

BULLETIN NO. 1

ISSUED BY THE

STATE HIGHWAY DEPARTMENT

FOR THE INFORMATION OF

ROAD SUPERVISORS.



Sup

1910.

HARRISBURG:

C. E. AUGHINBAUGH, PRINTER TO THE STATE OF PENNSYLVANIA
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TO ROAD SUPERVISORS.

In accordance with the provisions of Section 2 of the Act of April 12, 1905, as amended by the Act of May 13, 1909, the accompanying bulletin is issued for your information. It will be followed from time to time by other bulletins. Supervisors are urged to give careful attention to the instructions contained therein.

JOSEPH W. HUNTER,
State Highway Commissioner.



SUPERVISORS AND THEIR DUTIES.

HISTORY.

The office of supervisor is an old and time honored position, being of English origin and brought to the province of Pennsylvania by the colonists. The duties of surveyors of highways as known in England were clearly defined by law. Under the English law every township was bound to keep the highway that passed through it in good repair. From this burden no man was exempt; the repair of highways and bridges fell to the lot of the townships until the passage of the Statute 22, Henry VIII, Chapter 5, by which the care of the roads only was left to the townships, that of the bridges being in a great measure placed upon the county at large. If the township neglected to make the repairs the inhabitants of the township were liable to be called into court at any time and amerced in damages for non-repairing the highways. Under the Statute of 2 and 3, Philip and Mary; Chapter 8, surveyors of highways were directed to be chosen in every parish. This office had been known to the Roman laws, but was, with the Romans, undoubtedly a more important office than it was ever known to be in England, for the keeper of the Flaminian Highway was at one time a candidate for the Consulship with Julius Caesar. Under the Statute of Philip and Mary, surveyors of highways were appointed in each parish by the constables and church wardens, but by the Statute 13, George III, Chapter 78, the method of appointment was changed and placed in the hands of two justices of the peace.

The duty of the surveyors of highways consisted in enforcing a variety of laws for the repair of highways, which laws were by the Statute 13, George III, Chapter 78, reduced to one act. It provided:

1st. That they should remove all annoyances in the highways, or give notice to the owner to remove them, who was liable in certain penalties in case of refusal.

2nd. That they should call together all the inhabitants or occupiers of land, tenements and hereditaments, in the parish, who should labor six days in every year in bringing material, or in working on the roads; all persons who kept three horses or occupied lands worth fifty pounds a year being obliged to send a team every year; persons having less than three horses and occupying a farm worth less than fifty pounds a year were compelled to contribute in proportion; all other persons chargeable between the ages of eighteen and sixty-five were compelled to work or furnish a hand during said six days. But all these persons that were compelled to repair the highways might compound with the surveyors of highways at certain easy rates by the act; every leading road was directed to be made twenty feet wide at least and might be increased by two Justices, at the expense of the parish, to the width of thirty feet.

3rd. The surveyors might expend their own money in purchasing material for repairs, the erection of mile-posts, and finger boards, and in making drains, and were directed to be reimbursed by a tax rate to be allowed at a special session of the court.

4th. In case the personal labor of the parish was not sufficient to put all the roads in repair, the surveyors were authorized to apply to the Quarter Sessions for authority to levy a rate on the parish which could not exceed the sum of nine pence on the pound per annum with which to hire hands, etc., for the faithful appropriation of which they were compelled to account under oath.*

In the foregoing we find the origin of the laws relating to supervisors of the Commonwealth of Pennsylvania.

POWER AND AUTHORITY.

Supervisors acquire their office by election and possess very large power, having the right to levy and collect taxes and expend the money so collected and being criminally liable for neglect of duty.

The power and authority of supervisors is conferred by the Act of June 13, 1836, and the method of administration by the Act of April 12, 1905, P. L., as amended by the Act of May 13, 1909. Under the Act of 1836 supervisors are bound to keep the roads and bridges of the township in good repair. They should have sufficient ditches dug upon both sides of the road where necessary to carry off the water; they should remove all loose stones from the road; they should drain, elevate and stone low places; they should cut ditches from the road into the fields to carry off the water, and should any person or persons fill up these ditches they should be taken before a justice and fined. If the supervisors permit ditches to be filled up whereby the water is thrown upon the road the supervisors may be indicted. Supervisors have the right to go upon adjoining property for stone, sand and gravel; the value to be fixed by referees, if the supervisors and owner of property cannot agree upon a price.

If supervisors neglect to repair the roads or to keep them open the width the court decrees they shall be open they are liable to indictment. It is not necessary to give supervisors notice to repair before binding them over to court. The condition of the road is notice and they can be convicted, although since the binding over they may have repaired the road. Public roads or highways laid out, approved, or entered on record, shall be as soon as practicable effectually opened and constantly kept in repair; and all public roads shall at all seasons be kept clean of all impediments to easy and convenient passing and traveling, at the expense of the respective townships.

"Supervisors cannot change the location of the road as confirmed by the court, even with the assent of the owner of the land." "When once opened a new supervisor cannot change it on the ground that

*Supervisors' Guide—Hooton.

it was opened in a wrong place." Supervisors shall cause posts to be erected at the intersections of all public roads within their respective townships, with boards firmly fixed thereon, and index-hands pointing to the direction of such roads; on these boards shall be inscribed in large and legible characters the name of town, village or place to which such roads may lead and the distance thereto computed in miles.

PENALTIES.

If any supervisor shall, after ten days' personal notice, neglect or refuse to put up, or keep in complete repair, index-boards as aforesaid, such supervisors shall, for every such offense, forfeit and pay a sum not exceeding ten dollars.

If any person wilfully destroy, deface, or injure any guide post or index-board erected at or near any public road, or any notice put up at any public bridge as aforesaid, such person shall for every such offense forfeit and pay a sum not less than five nor more than fifteen dollars.

If any person shall stop, fill up, or injure any drain or ditch, made by any supervisor for the purpose of draining the water from any public road or highway, or shall divert or change the course thereof, without the authority of the supervisors for the time being, such person shall for every offense forfeit and pay a sum not less than four nor more than twenty dollars.

These provisions of the Act of 1836 are still in force.

ADMINISTRATION.

There are many townships in the State where the supervisors were administering the affairs of the township under special laws, there being no uniform system in the State.

The Act of April 12, 1905, P. L. 142, supplemented by the Act of May 13, 1909, P. L. 752, is a law general in its terms, and is intended to provide a uniform method of electing road supervisors in townships of the second class, and also provides a uniform system of administration of township affairs throughout the Commonwealth and is decidedly a step forward in the movement for securing better roads for the public.

Under the provisions of this Act there is a board of three supervisors in each township, one member of the board being elected each year for a term of three years.

Section 2 of said Act provides that "The supervisors of each township shall meet, at the place where the auditors of the respective townships meet to perform their official duties, on the first Monday in March; and after being duly sworn or affirmed, according to law, to discharge their duties with fidelity—a copy of the oath to be filed with the township auditors—shall organize as a board by electing

one of their number as chairman, etc.” Properly qualifying and filing a copy of the oath with the township auditors is a very important matter and the requirements should be strictly complied with; a failure to do so may cause supervisors trouble and be an expensive matter to the township. The Act, Section 2, also provides “That the road tax shall hereafter be collected in cash, and no such tax shall be payable in labor or worked out; but provided further, That any township may, by a majority vote of the electors thereof, at the February municipal election, after thirty (30) days prior notice thereof, adopt the system of payment of road taxes by work on the public roads. Such election shall be authorized by the court of quarter sessions, upon a petition of at least twenty-five taxpayers of said township; any township, which shall have collected its road taxes in cash, shall annually receive from the State fifty per centum of the amount of road taxes collected in said township, as shown by a sworn statement of the board of township supervisors furnished to the State Highway Commissioner on or before the first day of April in each year: Provided, That no township shall receive in any one year, more than twenty dollars for each mile of township road in said township.” In connection with this paragraph it is important to observe the date of filing the annual report, April 1st. Unless this report and the certification required by Section 2 of the same Act are filed with the State Highway Department on or before the date set, April 1st, the township will be debarred from participating in the distribution of any appropriation made to carry out the provisions of this Act.

DUTIES IN COAL MINING DISTRICTS.

It is the duty of the supervisors of the several townships in which the mining companies are working the road, under the Act of June 12, 1893, to file the required reports and the failure to make such reports will make them liable to indictment.

DUTIES OF STATE HIGHWAY COMMISSIONER.

In this section it is also provided “That the State Highway Commissioner shall furnish, from time to time, bulletins of instructions to each board of township supervisors for the building, repairing, maintenance and improvement of township roads, and shall furnish any additional information when called upon to do so. The State Highway Commissioner shall also furnish, from time to time, standards, plans and specifications for permanent improvements in the building of culverts, establishing of grades, proper drainage, and such other matters as he may deem essential. That the State Highway Department shall furnish blanks to the supervisors, in which said supervisors, or a majority of them, shall make a sworn statement, signed by all of the members of the board, that the money has

been expended in building, repairing, maintaining and improving the township roads according to the instructions, standards, plans and specifications submitted by the Highway Department, so far as the available funds and local conditions make it possible."

ESSENTIALS.

The Act of 1905 imposes new and additional duties on the supervisors, who must act as a board of supervisors and direct the affairs of the township in a manner similar to that of the board of commissioners of townships of the first class, or of the board of school directors. The Act also requires that the State Highway Department do and perform certain things for the townships and aid and assist the supervisors in the performance of their duties. In order to render such assistance to supervisors it is necessary to have some specifications or requirements to be observed. The following essentials must be complied with in order that a township may be entitled to receive the benefits of the said Act of April 12, 1905, as supplemented or amended by the Act of May 13, 1909.

1st. The annual report and certification of collection of tax in cash must be filed on or before April 1st in each year.

2nd. A roadbed not less than 14 feet in width must be maintained, except under special conditions and in certain locations.

3rd. A proper system of drainage must be adopted and maintained and ditches kept open.

4th. The surface of the roads must be kept in good shape, well rounded and free from loose stone.

5th. Road banks must be kept trimmed and free from brush, weeds and long grass.

6th. Wooden drains, culverts and bridges must be abolished as soon as possible and replaced with permanent structures.

These essentials will be enlarged upon in subsequent bulletins. At the present time the question of drainage will be considered and some cross-sections of drains and culverts shown.

DRAINAGE.

This question is the most important single feature of road maintenance. A highway which is inadequately or improperly drained can never be kept in good condition, no matter how diligent and painstaking the effort may be. There is no other point so essential in the care of the public roads, and which, if properly attended to, will so greatly relieve the township of expense.

DITCHES.

To this end the side ditches must be opened to a depth of 12 to 24 inches below the level of the road surface. The depth of the ditch

must in any case be dependent upon the quantity of water to be carried therein at times of greatest flow. The bottom and sides of ditches should be smooth and free from depressions or pockets which might interfere with the flow of water. Ditches adjoining clay roads should be larger than those adjoining sandy roads. Especial attention should be given to the ditch on the up-hill side of roads skirting hills. Many roads are periodically washed by surface water from adjoining hill slopes when a little care and judgment would entirely stop the trouble. It is often necessary in such locations to dig a deep ditch along the up-hill side of the road, which can, if advisable to do so, have a stone or tile drain laid in its bottom and be covered with earth. On many hill-sides as much water flows at a slight depth beneath the surface as upon it, and unless this sub-surface water is cared for it is likely to come up through the surface of the road in the form of springs, or in other cases the movement of water beneath the surface will steadily carry away the dirt until the road becomes pitted with innumerable depressions and irregularities.

CROWN OF ROAD.

In order that the water which falls upon the road surface shall readily reach the ditches, the road must be properly crowned, the fall from the center to the sides of the road being from one inch to the foot to one and one-half inches to the foot, dependent upon the character of the soil. In gravelly loam or ordinary soil a crown of one inch to the foot is usually adequate. Clay roads are bettered by more crown. Ruts should be filled or removed as rapidly as they form. It is economy to give frequent attention to the road surface, as every day of delay in remedying inequalities and depressions in it adds greatly to the expense which will be incurred. Wherever it is necessary to add new material in order to fill such depressions it should, if possible, be of the same nature as the road at that point. Holes in a dirt road should never be filled by dumping in loads of stone. Water will still gather in the hole as before, in and among the stone, while it will soon be found that a new hole will have formed at each end of the stone pile, where the wheels of vehicles drop with damaging effect from the stone heap upon the softer earth.

ROAD MACHINES—SCRAPERS.

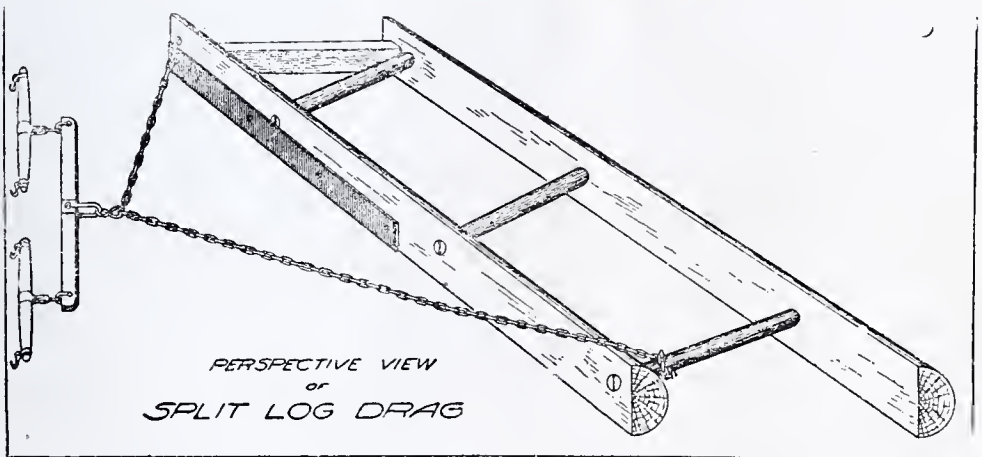
The road machine is a valuable implement, but is frequently, if not commonly, used without the exercise of proper judgment. Too often it is utilized to bring out of the ditches and into the center of the road all the worn-out material which has washed into them, together with stones, sticks and sods, which are left heaped in a ragged pile along the middle of the roadway. Material of this class is not fit to be placed upon the road surface. The good work done by the

road machine in scraping it out of the ditches should not be nullified by leaving it on the road, but instead, it should be removed entirely, even if it be necessary to load it into wagons or carts and haul it away.

ROAD DRAG.

An implement which should be in regular use upon all dirt roads is the road-drag. It can be bought at small expense, or built still more cheaply, and in proportion to its cost it is the most valuable piece of road machinery which a township can possess. It should be used immediately after each rain-fall, when the soil is full of moisture. It is labor lost to use it when the road surface is dry and dusty.

SPLIT LOG DRAG—SHOULD BE USED ON DIRT ROADS AFTER EVERY RAIN WHILE THE SOIL IS MOIST.



Log, 8 feet long, 12 inches thick, split in middle. Slabs, 30 inches apart joined by 3 stakes. Front slab should be 16 inches ahead. Holes for stakes 2 inches. Iron strip $3\frac{1}{2}$ feet long, 4 inches wide and $\frac{1}{4}$ inch thick, bolted on lower edge of front slab. Brace 2×4 inches placed diagonally at front end. Platform of boards to be laid across stakes to stand on.

WATER BREAKS.

So-called "water-breaks" exist usually for the purpose of carrying water from one side of the road to the other. Very infrequently they are constructed on long, steep hills to form resting places for teams. The latter purpose may be partially justified, but there is no valid excuse for the former, as water should in no case be carried across the surface of the road. Where water must be diverted from one side to the other it should be conveyed beneath the surface by means of pipes or culverts of capacity adequate to carry the maximum amount of water which will ever demand passage. Pipes of suitable material, when properly laid, cost little or nothing to maintain beyond an occasional cleaning out. Water-breaks require constant attention and are frequently inadequate to prevent flood-water from over-flowing down the surface of the road. They are also serious obstacles to travel, increasing very materially the steepness of the hills where they are used, and making necessary the hauling of proportionately smaller loads.

CULVERTS AND PIPES.

In the majority of the townships in which any attempt is made to carry water across below instead of above the road surface it is done by means of plank culverts, usually constructed in the most primitive manner, while the larger water-courses are spanned by structures constructed in part, if not wholly, of wood. In some instances stone has been used in a very commendable manner, but it is found that many of the bridges, culverts and drains which have been built of stone have been laid up in an inefficient manner which has led in a few years to the necessity of expensive repairs. For the smaller culverts and drains, in which smoothness of interior surface is desirable, four kinds of pipe are available, vitrified clay, cast iron, corrugated iron and concrete. The use of wood for such purposes is to be discouraged, and all existing plank culverts should be replaced by some other material as rapidly as practicable. Vitrified clay pipes are much cheaper than iron, but unless very carefully protected are very liable to breakage. Except in rare cases this material is not recommended by the Department. Cast iron pipe is in frequent use for such purposes and is very satisfactory except in localities where subjected to chemical action, as in the mining districts, where sulphur water is encountered.

CAST IRON AND CORRUGATED PIPES.

The cost of cast iron is, however, a decided obstacle to its universal use, and from this fact comes the corrugated metal pipe which has been on the market for several years past. If made of ordinary steel the use of such pipe cannot be condemned too strongly, but if made of special material containing so small a percentage of impurities as to be practically pure iron it will be found an economical investment for a township. If used, the manufacturers should be required to give some sufficient guarantee of its quality and durability. It should not, however, be used where liable to come in contact with sulphur water.

CONCRETE PIPE.

It will be found in the majority of cases that concrete pipe can be used as economically as corrugated metal and in many instances at even less cost, and the Department urges all boards of supervisors to adopt concrete as the material for drainage pipes in all places where it is possible to do so. Concrete pipe may either be purchased ready to lay, or cast in molds owned by the township, or may be built in place over collapsible forms.

PLACING PIPES.

Whatever the material, all pipes should be placed at the proper elevation to prevent the formation of pools, and at such a slope or grade that the rate of flow may not be impeded. It is best to give the

pipe even more slope than seems necessary, as the steeper the slope the less liability to stoppage by debris or ice. Careful attention must also be given to the angle at which the pipe crosses the road. So far as feasible the pipe should be laid in the direction of the flow of the water it is designed to carry. Pipes designed merely to convey water from one side of the road to the other should never be laid at a right angle to the road. Much trouble in cleaning out clogged pipes and frequent expensive repairs to the road may be avoided by remembering this rule and laying the pipe at an angle of from 30 to 60 degrees, as may be most desirable. The length of pipe to be laid is thus increased slightly, but the additional cost incurred thereby is more than balanced by subsequent decreased expense of maintenance.

SMALL BRIDGES.

Water-courses which are too large to be conveyed in pipes should be spanned by concrete culverts or bridges. No other material can be so economically used, when first cost and subsequent expense of maintenance are considered. Wooden bridges are a waste of money, and iron structures require constant care if they are preserved in proper condition. Concrete, on the contrary, requires absolutely no expense or attention after construction, and its durability far exceeds the best iron or steel bridge. In rare cases it may be more economical to build bridges of cement masonry instead of concrete, but unless unusual care and skill are exercised the cement masonry structures will need re-pointing at frequent intervals, while the concrete bridge requires no attention whatever.

The Department will furnish free, on application, plans for concrete culverts and bridges, and suggestions or advice upon any other detail of road construction or maintenance.



LAW GOVERNING THE ELECTION AND DEFINING THE DUTIES OF ROAD SUPERVISORS,

Approved April 12, 1905.

As amended by Act approved May 13, 1909.

AN ACT

Providing for the election and appointment of road supervisors in the several townships of the second class of this Commonwealth; defining their duties; authorizing them to make, repair and maintain roads and bridges, let contracts for the same, levy and collect taxes, employ labor, divide townships into districts, appoint roadmasters and treasurer, purchase road-making implements and machines; prescribing penalties for violation of this act; and requiring the road supervisors to report to township auditors and to the State Highway Commissioner, from time to time, and for the payment of a percentage of road tax to townships that abolish the work tax; and for the repeal of all laws, general, local or special, inconsistent herewith or supplied hereby.

Section 1. Be it enacted, &c., That in every township of the second class in this Commonwealth, the qualified voters thereof shall, on the third Tuesday of February, one thousand nine hundred and six, elect one person to serve one year, one person to serve two years, and one person to serve three years, who will be styled road supervisors; and at each township election thereafter, they shall elect one person to serve three years: Provided, That in any township which now has three supervisors, or other officers having charge of roads, elected under existing laws, no new election under this section shall be required, except as the terms of said road officers expire.

Townships of the second class.

Road supervisors.

Proviso.

Section 2. The road supervisors of each township shall meet, at the place where the auditors of the respective townships meet to perform their official duties, on the first Monday in March, one thousand nine hundred and ten, and yearly thereafter; and after being duly sworn or affirmed, according to law, to discharge their duties with fidelity,—a copy of the oath to be filed with the township auditors,—shall organize as a board by electing one of their number as chairman, and shall appoint a treasurer and a secretary, who may or may not be the same person, and who may or may not be a member or members of the board, but who shall not be a roadmaster, and the secretary shall perform all the duties heretofore performed by the township clerk, which office is hereby abolished; and the said secretary shall receive as compensation for his services such sum as shall be fixed by the township au-

Annual meeting.

Oath of office.

Organization.

Office of township clerk abolished.

Compensation of secretary and treasurer.	ditors, and the treasurer shall receive as compensation
Proviso.	for his services such sum as shall be fixed by the town-
	ship auditors: Provided, That the combined amount
Levy of a road tax.	paid to said secretary and treasurer shall not exceed
	two per centum of the money paid out by said treas-
Proviso.	urer. The board shall proceed immediately to levy a
	road tax, which shall not exceed ten mills on each dol-
Levy by order of court.	lar of valuation; this valuation shall be the last ad-
	justed valuation for county purposes, and which shall
	be furnished to said road supervisors by the commis-
	sioners of the proper county: Provided, That a greater
	rate than ten mills, and not to exceed ten additional
	mills, may be levied by order of the court of quarter
	sessions of the peace of that county, upon petition of the
	board of supervisors, with their unanimous recommen-
	dation, and upon due cause shown: Provided, however,
Proviso.	That the said road tax shall hereafter be collected in
	cash, and no such taxes shall be payable in labor or
Cash road tax.	worked out: But provided further, That any township
Change of system of taxation.	may, by a majority vote of the electors thereof, at the
	February municipal election, after thirty (30) days
Election.	prior notice thereof, adopt the system of payment
Petition.	of road taxes by work on the public roads. Such
	election shall be authorized by the court of quar-
	ter sessions, upon a petition of at least twenty-five tax-
	payers of said township; any township, which shall
Abolition of work tax.	have collected its road taxes in cash, shall annually
Payment by State to townships.	receive from the State fifty per centum of the amount
Statement.	of road taxes collected in said township, as shown by a
	sworn statement of the board of township supervisors,
	furnished to the State Highway Commissioner on or
Proviso.	before the first day of April in each year: Provided,
	That no township shall receive, in any one year, more
Limit.	than twenty dollars for each mile of township road in
Proviso.	said township: Provided, That nothing in this section
	shall interfere with the State appropriation for main-
	tenance of State or macadamized roads under existing
State appropria- tion.	laws. The said statement shall show the amount of
	tax assessed as well as the amount collected, and shall
	be made upon a blank which shall be furnished by the
	said Highway Department. Upon receipt of the sworn
	statement from the board of township supervisors, it
	shall be the duty of the State Highway Commissioner
	to draw a warrant upon the State Treasurer, for the
Warrants.	payment of the amount due said township under the
	provisions of this section, to the treasurer of the board
	of road supervisors, which shall be paid out of moneys
Proviso.	appropriated for that purpose: Provided, That the
	State Highway Commissioner shall furnish, from time
	to time, bulletins of instructions to each board of town-
	ship supervisors for the building, repairing, mainte-
	nance, and improvement of township roads, and shall
	furnish any additional information when called upon
	so to do. The State Highway Commissioner shall also

furnish, from time to time, standards, plans, and specifications for permanent improvements in the building of culverts, establishing of grades, proper drainage, and such other matters as he may deem essential. That the State Highway Department shall furnish blanks to the supervisors, in which said supervisors, or a majority of them, shall make a sworn statement, signed by all the members of the board, that the money has been expended in building, repairing, maintaining, and improving the township roads according to the instructions, standards, plans and specifications, submitted by the Highway Department, as far as the available funds and local conditions make it possible: Provided further, That before issuing the duplicate and warrant for the collection of road taxes, it shall be the duty of the Board of Supervisors of every township that has not abolished the work tax to give notice to all persons rated for such taxes, by advertisement or otherwise, to attend at such times and places as such supervisors may direct, so as to give persons full opportunity to work out their respective taxes.

Sworn statement
of supervisors.

Proviso.

Notice in town-
ships where work
tax is not abol-
ished.

Section 3. It shall be the duty of the board of road supervisors, immediately after their organization as a board, to divide their township into road districts of not less than five miles of road to each district; and they may employ a roadmaster for each district, whose duty it shall be to see that the work done on the roads in his district or division is in accordance with plans and specifications furnished him by the road supervisors, to oversee the men employed while at work on the roads, and keep the time of each man working under him, and work himself if required by the supervisors, and report to the road supervisors at least once a month, or as often as they require, the nature, location, and cost of the work performed. Road supervisors may require the roadmasters to give bond, with approved security, for faithful performance of their duties; and, if required by the board, said roadmasters shall make out their report under oath; and said roadmasters shall, at all times, be subject to removal by the board of road supervisors. The road supervisors, from time to time, shall fix the wages to be paid, per hour, to roadmasters and laborers for work on the roads and bridges: Provided, however, That nothing in this act shall prohibit the board of supervisors from making a contract for the improvement and keeping in repair of not more than ten miles of road; no contract to extend over three years, and no contract to be given unless approved of and signed by at least two of the board of township supervisors. Every contractor for road work shall give bond for the amount of said contract, and sign specifications furnished by the road supervisors for the building and care of such contract roads: Provided also, That nothing in this act shall

Township road
districts.

Duties of road-
masters.

Bond.

Reports.

Proviso.

Contracts.

Bond of con-
tractor.

prohibit the road supervisors from overseeing and working on the roads themselves, in part or all of the roads in their townships, instead of employing roadmasters; the compensation of such supervisors to be fixed by the township auditors, at the annual meeting in March herein provided for.

Purchase of material, machines, plows, etc.

Joint ownership.

Proviso.

Petition.

Treasurer to give bond.

Section 4. The board of road supervisors shall have full control of roadmasters and employment of laborers, and is authorized also to purchase such material, scrapers, plows, stone-crushers, rollers, and other road-machines, tools and property, as shall in its judgment be necessary for making and repairing roads and bridges; the same to be the property of the township, used exclusively for township purposes, and to be properly taken care of by said board of road supervisors. Said road supervisors are hereby authorized to join with the road supervisors of one or more of the other townships, or the proper authorities of boroughs, in their respective counties, in the purchase of such road-making implements and machines as, in their judgment, may be too expensive to justify such purchase by said township alone; the same to belong to such township or boroughs in proportion to the amount paid therefor by each, and the right to use the same to be regulated by agreement to be made between said road supervisors or borough authorities, at the time of joining in said purchase: Provided, That said joint ownership shall only continue during such period as may be agreeable to all of said joint owners, and either board of road supervisors or borough authorities may, at any time, elect to sever said joint ownership as to any or all of said implements and machines. In case terms cannot be amicably agreed upon, either of said joint owning townships or boroughs, may by its board of supervisors or proper borough authorities, present its petition to the Court of Quarter Sessions of the peace, setting forth the facts, verified by affidavit; which court, after notice and opportunity to be heard, shall then make such order for the sale or disposal of said joint property as will be right and proper in such case.

Section 5. The treasurer appointed by the board of road supervisors shall be required to give bond, with at least two sufficient sureties, to be approved by the auditors of the township, conditioned that the said treasurer shall well and truly account for and pay over all moneys collected and received by him for road purposes, according to law; and such bond shall be filed with the township auditors. He shall pay out moneys received by him as road taxes, only on the written order of the road supervisors, setting forth the purpose for which the order is given, signed by the chairman of the board and attested by the secretary thereof.

Section 6. The road supervisors of each township shall make or cause to be made a duplicate designating the amount of road tax levied against each taxpayer of the township, and deliver the same to the township collector, who shall, after receiving said duplicate, give notice thereof in the same manner as is now required by law in collection of State, county, and poor taxes; and shall give him a warrant to collect the tax, which shall be collected as follows; namely, To all taxpayers who pay their road tax to the collector before June first, of each year, an abatement of five per centum shall be made; on all road taxes paid to the collector between June first and October first, of each year, the taxpayers shall pay the full amount of the road tax levied against them, and on all road taxes remaining unpaid on the first of October, in each year, the collector shall add five per centum thereto as penalty for such delinquency, and shall collect said penalty in addition to the tax levied—said penalty to be his compensation for collecting said delinquent taxes. The tax collector shall remit to treasurer of the board, at least once every month, the amount of road taxes collected by him.

Duplicates.

Notice to taxables.

Payment of taxes.

Delinquents.

Section 7. The road supervisors shall meet for the transaction of business once each month, at a time to be fixed by the board; and the board may be allowed for necessary expenses, including office rent and stationery, light and fuel, to be paid out of the township road funds.

Monthly meetings.

Section 8. In all cases where a vacancy occurs, in the board of road supervisors, from any cause, the Court of Quarter Sessions of the peace of the proper county shall, upon the petition of the remaining members of the board, appoint a successor to fill the office until the next election for township officers: Provided, That such vacancy happens at least thirty days before said election; if less than thirty days before said election, the person so appointed shall fill the office until the next election thereafter for township officers, and until a successor is duly elected and qualified.

Vacancies.

Proviso.

Section 9. The board of road supervisors shall annually submit, under oath, to the board of township auditors a full and itemized statement of their accounts of the preceding year; and the township auditors shall audit, settle and adjust said accounts, in the same manner and with effect as other accounts of township officers are audited and settled.

Annual statement.

Audit.

Section 10. The board of road supervisors of the several townships shall, annually, on or before the first day of April in each and every year, make a sworn statement to the State Highway Commissioner, on blanks furnished to them by the State Highway Commissioner, of the whole amount of money raised during the preceding year by taxation for road purposes;

Annual statement to the State Highway Commissioner.

specifying in such report the amount expended for maintenance or repairs of roads, for opening and building of new roads, and for macadamizing or otherwise permanently improving roads, and the number of miles thus made, and the total number of miles of township roads in said township, together with the names and addresses of the chairman and secretary of the board, and such other matters and things as the State Highway Commissioner may require. And it shall be the duty of the State Highway Commissioner, not later than the fifteenth day of February of each year, to forward the aforesaid blanks to the several boards of supervisors. It shall be the duty of the clerk of courts in each county, not later than the first day of April of each year, to certify to the State Highway Commissioner the names of all the supervisors and commissioners of the respective townships in said county.

Blanks.

Duty of clerks of courts.

Minutes, books, etc.

Section 11. The board of road supervisors shall keep minutes of their proceedings, and such books as they may find necessary in the performance of their duties; all of which shall be open for the inspection of any taxpayer, at all reasonable times, and which shall be submitted for the information of the township auditors when said auditors meet to audit the accounts of the treasurer and other township officers; and shall deliver such books, papers and accounts to their successors.

Supervisors shall not be interested in work, contracts, etc.

Section 12. It shall not be lawful for any road supervisor to be interested, either directly or indirectly, in any work done, purchase made, or contract relating to roads and bridges, nor to furnish any materials therefor. Any person knowingly violating the provisions of this section shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be sentenced to pay a fine not exceeding five hundred dollars, or to be imprisoned for a term not exceeding six months, both or either, at the discretion of the court.

Misdemeanor.

Fine and penalty.

Section 13. If any road supervisor, roadmaster or contractor, employed to work on the roads, bridges and highways of this Commonwealth, shall violate any of the provisions of this act, or shall fail, neglect or refuse to carry out the same, he shall pay a fine of not more than fifty dollars, to be collected in the name of the township, as other debts of like amount, and paid to the township treasurer, for the use of the road fund of said township.

Neglect or refusal. Fine.

Duties and responsibilities of supervisors.

Section 14. The road supervisors of the several townships of this Commonwealth, elected or appointed in pursuance of this act, shall perform all the duties imposed by the existing laws or supervisors of roads, bridges and highways; and shall be subject to the same responsibilities and penalties that supervisors are now subject to, except in so far as changed or supplied by the terms of this act.

Section 15. Two shall constitute a quorum of the board of supervisors. Quorum.

Section 16. All acts or parts of acts, general, special or local, inconsistent herewith or supplied hereby be and the same are hereby repealed: Provided, however, That the act, entitled "An act enabling the taxpayers of townships and road districts to contract for making, at their own expense, the roads, and paying salaries of townships or road district officers, and thereby preventing the levy and collection of road tax therein," approved June twelfth, one thousand eight hundred and ninety-three; and the act entitled, "An act to provide for the permanent improvement of certain public roads or highways in the several counties of this Commonwealth, making such improved roads and highways county roads, authorizing the relocation, opening, straightening, widening, extension, and alteration of the same, and the vacation of so much of any road as may therefore become unnecessary, authorizing the taking of property for such improvement, and providing the compensation therefor, and the damages resulting from such taking; providing for the payment of the costs and expenses incurred in making such improvement, and in thereafter repairing and maintaining said road, and authorizing the levy of a tax to provide a fund for said purposes," approved the twenty-sixth day of June, Anno Domini one thousand eight hundred and ninety-five; also "An act to provide for the classification of the townships of the Commonwealth, with respect to their population, into two classes, and to prescribe the form of government for townships of each class," approved April twenty-eighth, one thousand eight hundred and ninety-nine; also "An act to amend 'An act to provide for the classification of the townships of the Commonwealth, with respect to their population, into two classes, and to prescribe the form of government for townships of each class,' approved April twenty-eighth, one thousand eight hundred and ninety-nine," approved the twenty-fourth day of May, one thousand nine hundred and one, shall not be repealed hereby, but shall continue in force and effect.

Repeal.

Proviso.

Acts not repealed

Act of June 12, 1893.

Act of June 26, 1895.

Act of April 28, 1899.

Act of May 24, 1901.

Approved—The twelfth day of April, Anno Domini one thousand nine hundred and five.

SAML. W. PENNYPACKER.

The Act of 1909 also contained the following provision for funds for the payment of the cash tax bonus:

Section 6. The sum of one million dollars, or so much thereof as may be required, is hereby appropriated to carry out the provisions of this act, for the one fiscal

Appropriation.

Proviso.

Measurement of
roads, and report.

year beginning the first day of June, one thousand nine hundred and ten: Provided further, That within six months after the passage of this act, the Board of Township Supervisors shall measure all public roads in their respective townships. Such measurements shall be made either by the use of a cyclometer or otherwise, as the board may direct, and they shall report the number of miles of road in such township to the State Highway Commissioner.

Approved—The thirteenth day of May, Anno Domini one thousand nine hundred and nine, in the sum of \$500,000. I withhold by approval from the remainder of said appropriation because of insufficient State revenue.

EDWIN S. STUART.

AN ACT

Relating to roads and road laws in the several townships of this Commonwealth.

General road law
to apply when lo-
cal road law re-
pealed.

Section 1. Be it enacted, &c., That when any local or special law in any of the townships of this Commonwealth, which provided for the laying out, opening and keeping in repair the several roads in the same, or which provided for the levying, assessment and collection of road taxes, has been or shall hereafter be repealed, then and in every such case the general road law shall apply to, govern and control the said township, the same as though they have never been acting under or affected by any such local or special law.

Approved—The tenth day of June, Anno Domini one thousand eight hundred and eighty-one.

HENRY M. HOYT.

AN ACT

To amend an act, entitled "An act to provide for the improvement of the main traveled public roads " approved May second, one thousand eight hundred and ninety-nine; changing the time said act should be in operation, and imposing a penalty in case of neglect or refusal of supervisors or road commissioners to carry on the provisions of said act.

Section 1 of the
act of May 2, 1899,
cited for amend-
ment.

Section 1. Be it enacted, &c., That section one of an act, entitled "An act to provide for the improvement of the main traveled roads," which reads as follows: "From and after the passage of this act, the township supervisors and road commissioners of the several townships within this Commonwealth shall, annually, on the first Monday of April, enter into a contract with one or more taxpayers to remove and take away the loose stones from the main traveled

highways in such township, at least once a month, during the months of April, May, June, July, August, September and October of each year," be and the same is hereby amended to read as follows:

That from and after the passage of this act, the township supervisors and road commissioners of the several townships within this Commonwealth shall, by contract or otherwise, remove and take away the loose stones from the traveled roads or highways in such township, at least once each month, during the months of May, June, August and October, in each year.

Township officers shall provide for removal of loose stones.

Section 2. In case of neglect or refusal of the supervisors or road commissioners to carry out the provisions of the first section of this act, shall forfeit and pay for every such offense, neglect or refusal a fine or penalty not exceeding ten dollars, to be recovered by action of debt, in the name of the Commonwealth, before any justice of the peace or alderman of the county, with costs of suit. One-half of such fine to go to the informer or prosecutor, and the other one-half to be applied to repairing the roads or highways of the township.

Penalty in case of neglect or refusal

Approved—The second day of July, Anno Domini one thousand nine hundred and one.

WILLIAM A. STONE.

AN ACT

To provide for keeping the public highway from becoming blockaded with snow.

Section 1. Be it enacted, &c., That in all cases where any of the public highways within this Commonwealth are so located as to render them liable, on account of high wind during the winter season, to be so filled with snow as to cause them to be impassable, and where, in the judgment of the supervisors of roads of the several townships in which such public highways are situated, such drifts of snow can be avoided by the removal of any board, rail or fence that may be erected along either side of such public highways and replacing the same by a fence constructed of posts, wire and boards, or rail combined, it may be lawful for such supervisors to agree with the owners of such fences upon a plan for the erection of a fence constructed of posts, wire and board, or rail combined. And it may be lawful for supervisors to pay the owners of such fences a sum not to exceed the first cost of the wire used in the construction of such fences: Provided, That the wire used in the construction of

Duty of supervisor when roads are filled with snow.

Removal of board fences.

Construction of other kind of fences.

Supervisors may pay cost of wire for new fences.

Proviso.

Proviso.

such fences shall be without barbs: Provided, That this act shall not apply to any stone wall, hedge or ornamental fence that is now or may be hereafter constructed.

Approved—The twenty-sixth day of May, Anno Domini one thousand eight hundred and ninety-seven.

DANIEL H. HASTINGS.

AN ACT

Supervisors to cut down and destroy all such thistles growing in the public roads or highways.

In case of unseated or mountain lands owners or agents thereof to be notified in writing to cut down and destroy the same.

Duty of supervisors in case of neglect.

Compensation.

Penalty for neglect or refusal on part constable or supervisor to perform duties prescribed.

How recoverable.

Section 3. It shall be the duty of the supervisor or supervisors of the public roads or highways in every township or district as aforesaid, to cut and destroy in the same manner all such Canada thistles or weeds on or along such roads, and in case of unseated or mountain lands, whenever it shall come to the knowledge of either the supervisor or constable of the existence of any such Canada thistles or weeds thereon, it shall be his duty to notify the owner, or owners, or agents of said lands in writing, giving ten days' notice, to cut and destroy the same as aforesaid, and upon failure to comply at the end of ten days such officer, or any person or persons employed by him, shall proceed in the manner hereinbefore provided, with like fees and compensation, and if any such constable or supervisor shall neglect or refuse to perform his duties as prescribed by this act, he shall be liable to a fine of ten dollars, the same to be used for and recovered as aforesaid, by the party or parties aggrieved or about to be injured by such neglect or refusal.

Approved—The twenty-fourth day of April, Anno Domini one thousand eight hundred and eighty-five.

ROBT. E. PATTISON.

AN ACT

To permit persons to build sidewalks along public highways, and to prohibit riding and driving on the same, and providing penalties for the violation thereof.

Land owners may build sidewalks.

Section 1. Be it enacted, &c., That from and after the passage of this act, that all persons owning lands along the public highways of this Commonwealth shall have the right to lay out and build one sidewalk along said public highway, as far as said persons' lands may extend along the same.

Width of same, etc.

Section 2. All sidewalks built by land owners along the public highways of this Commonwealth, shall not be over four feet wide, and be constructed and kept in repair by said land-owner at his own expense.

Section 3. That if any person or persons shall wilfully and maliciously ride or drive any horse or any other animal, upon or into any board walk or side walk or footway laid, erected or being on and along the side of any road or highway in any township of this Commonwealth, or shall otherwise wilfully break, injure or destroy the same, the person or persons so offending, upon conviction thereof before any magistrate, alderman or justice of the peace, shall be sentenced to pay, in addition to costs, a fine not exceeding twenty dollars, nor less than five dollars, which shall be paid to the school district wherein the offense was committed; on failure to pay any such fine and costs, the person or persons shall be committed to the county jail, there to remain until discharged according to law: Provided, That no conviction shall be had under the provisions of this act in any case where the boardwalk, sidewalk or footway aforesaid shall have been located between the gutterways, or within the limits of the ordinarily traveled roadbed, or so as to encroach thereon: Provided however, That if the fine is above five dollars the defendant shall have the right of appeal.

Penalty for injury to sidewalk.

Fine.

Or imprisonment.

Proviso.

Appeal.

Approved—The seventh day of May, Anno Domini one thousand eight hundred and eighty-nine.

JAMES A. BEAVER.

AN ACT

To authorize the supervisors, road commissioners or other officers having in charge the constructing and keeping in repair the public roads in any township in this Commonwealth, to cause to be erected a suitable building in which to hold elections, store road machinery and transact township business, and authorizing the construction of sidewalks.

Section 1. Be it enacted, &c., That the supervisors, road commissioners or other officers having in charge the constructing and keeping in repair the public roads in any township in this Commonwealth, are hereby authorized, at their option, to cause a suitable lot of ground to be procured and cause a suitable building to be erected thereon for a town house in which to hold elections, store road machinery, hold meetings of township officers, and for other township uses.

Supervisors may erect house for elections, etc.

Section 2. For the purpose of procuring a lot of ground and erecting a building thereon, as provided in the first section of this act, it shall be lawful for the supervisors, road commissioners or other officers having in charge the constructing and keeping in repair the public roads or highways in any township, to borrow money at a rate of interest not exceeding six per centum, and issue bonds therefor: Provided, That

May borrow money and issue bonds therefor.

Proviso.

the total indebtedness incurred by any township, under this act, shall not exceed one-half of one per centum of the assessed value of real estate of such township.

May collect annual tax to pay indebtedness incurred in erection of building.

Amount of tax.

May establish location for a sidewalk along highways.

Width.

Shall be kept in repair by owner of land.

Section 3. For the purpose of procuring a lot and erecting a building thereon and paying the indebtedness incurred under this act, the supervisors, road commissioners or other officers having in charge the constructing and keeping in repair the public roads and highways in the several townships of this Commonwealth, are hereby authorized to collect annually, in cash a tax not exceeding fifty per centum of the rate of assessment by them, respectively laid in each year for road purposes; such tax to be collected in the same manner that other cash taxes are now by law collected.

Section 4. That the supervisors of any township in this Commonwealth be and they are hereby authorized, upon the request of any land owner whose land fronts upon a public highway within such township, to establish a proper width and location for a sidewalk along each side of said highway along the lands of said owner, which width of walk on each side of said highway shall not be less than six feet for roads fifty feet in width or less, and for roads in excess of fifty feet in width shall be ten feet in width, and that when said sidewalks are so established it shall be the duty of such land owner to pay for and keep the same in repair.

Approved—The twenty-sixth day of June, Anno Domini one thousand eight hundred and ninety-five.

DANIEL H. HASTINGS.

AN ACT

To encourage the use of wide tires upon wagons upon the public highways of this Commonwealth, and providing penalties for its violation.

Affidavit as to use of wide tired wagons.

Credit on taxes.

Section 1. Be it enacted, &c., That every person who shall subscribe to an affidavit that he has owned and used or used exclusively during the preceding year, in hauling loads of two thousand pounds weight and over on the public roads of this Commonwealth, draught wagons with tires not less than four inches in width, shall, for each year after the passage of this act, be credited by the supervisor of highways of the respective district in which such tax is levied and assessed with one-fourth of the road tax assessed and levied on the property of such person. And when any tenant shall by contract be or become liable for road taxes assessed against the premises leased to him, he may secure the benefit of this act upon making the affi-

davit hereinbefore specified, as to the exclusive use by him of such wagons as are hereinbefore designated: Provided, however, such credit shall not exceed in any one year, to any one person, five days' labor on the highways, or its equivalent in cash. And every supervisor of roads is hereby authorized and empowered to administer the oath hereinbefore mentioned.

Proviso.

Loads of 10,000 pounds and upwards.

Section 2. Every person who shall use on the public roads of this Commonwealth, in hauling loads of ten thousand pounds weight and upward, any wagon or wagons having tires less than four inches in width, shall be liable to a fine of five dollars for each and every offense, which fine shall be recovered in a criminal proceeding, instituted upon the complaint of any person at the suit of the Commonwealth, before any justice of the peace, and the fine so imposed shall be payable to the supervisors of roads for the use of the road fund of the respective township.

Fine.

Section 3. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

Repeal.

Approved—The twenty-fourth day of April, Anno Domini one thousand nine hundred and one.

WILLIAM A. STONE.

AN ACT

To provide for the erection and maintaining of watering troughs for the use of horses and cattle on the public roads of this Commonwealth, and providing penalties for the injury and destruction of the same.

Section 1. Be it enacted, &c., That under the sanction and supervision of the supervisors of roads, or road commissioners of the respective townships, or council, or persons having charge of the streets, in the respective boroughs of this Commonwealth, any person, or persons, or chartered societies not for profit, the object of which shall be to erect and maintain watering troughs along the public roads, who may erect and maintain in good repair, a public watering trough of not less than six feet in length, twelve inches in width and ten inches in depth, in the clear, of either wood, or iron, or of stone, except that the stone troughs shall be not less than two feet in length, and have pure clear water continually running into the same, except in hard freezing weather, by a pipe, pipes or otherwise, upon the side of the public highway, erected of sufficient height and of easy access, suitable for watering horses and cattle, and approved by the supervisors or road commissioners of such township, or person having charge of the streets of the boroughs, shall be entitled to receive

Persons or chartered societies not for profit, erecting watering troughs, to receive compensation from road fund.

Description of trough.

To be approved by supervisors or road commissioners.

Compensation.

Borough authorities may erect same.

Chartered societies to publish annual statement of moneys so received and expended.

But one trough within five miles to be paid for.

Preference.

Persons furnishing water for troughs entitled to compensation.

When supervisors may erect such troughs.

Penalty for injuries to troughs.

Supervisors to give preference to owners of troughs already erected.

from the road fund thereof a sum of money not exceeding five dollars annually, as shall be agreed upon at the time of the erection of such trough: Provided, That the town council, or person having charge of the streets, in the several boroughs, may erect proper and suitable watering troughs at an expense not exceeding twenty dollars: Provided further, That, after the first payment and before receiving any subsequent annual payment, such chartered society shall publish a statement, attested by the president and secretary, certifying that all the moneys received from the road fund, as provided by said act, has been expended in the erection of troughs and supplying the same with water, or in keeping those already erected in proper repair: Provided, That, if more than one watering trough is erected and maintained within five miles on the same road, but one such trough shall be entitled to the benefit of this act, and the oldest and first trough shall have the preference.

Section 2. That on any public road where running water cannot be supplied for such trough, any person or persons, who may provide water for the purpose aforesaid by a pump, and keep the same in proper repair to be worked by the person desiring water for their horses or cattle, may erect such pump and trough and to be approved of by the supervisor or road commissioner of such borough or township, shall be entitled to the same annual pay from the road fund thereof as provided for in the first section of this act.

Section 3. That whenever any person or persons who are in possession of running water, or where water might be supplied easily by a pump, that might be made available for the purposes of the provisions of this act, who neglect to accept the same, the supervisors or commissioners of roads or streets may, with the consent of the owners or occupants thereof, erect such troughs and keep the same in proper repair at an annual expense not to exceed that as provided for by the first section of this act.

Section 4. That whenever any watering trough is erected for the purposes aforesaid, the same shall be public property; and any person or persons wantonly destroying or injuring the same, or committing any nuisance upon or near the same, shall be liable to a prosecution before any justice of the peace of the proper county, and if duly proved to the satisfaction of the said justice, shall be punishable by a fine not exceeding twenty dollars, and upon refusing to pay the same, together with the costs thereof, may be by the said justice committed to the prison of the county for a period not exceeding ten days.

Section 5. That whenever watering troughs have already been erected on the public highways, the super-

visors and road commissioners shall give the owners the preference as to the benefits of this act: Provided, They accept the provisions of the same.

Approved—The twenty-eighth day of April Anno Domini one thousand eight hundred and seventy-six.

J. F. HARTRANFT.

(The above Act is given as amended by the Act approved June 25, 1885.)

AN ACT

To encourage the planting of trees along the roadsides of this Commonwealth, and providing a penalty for killing, removing or injuring the same, what disposition is to be made of moneys collected as penalties, and for keeping a record, by the supervisor of roads or boards of supervisors of roads, of the trees so planted and upon which a tax abatement has been granted.

Section 1. Be it enacted, &c., That any person liable to road tax, who shall transplant to the side of the public highway on his own premises any fruit, shade or forest trees, of suitable size, shall be allowed by the supervisor of roads or boards of supervisors of roads, where roads run through or adjoin cultivated fields, in abatement of his road tax, one dollar for every two trees set out; but no row of elms shall be placed nearer than seventy feet; no row of maples or other forest trees nearer than fifty feet, except locust and Carolina poplar, which may be set thirty feet apart, and except fruit trees, which may be set forty feet apart; and no allowance as before mentioned shall be made unless such trees shall have been set out the year previous to the demand for such abatement of tax, and are living and well protected from domestic animals at the time of such demand.

Planting of trees
along roadside.

Abatement of
road tax.

Distances.

Section 2. Any fruit, shade or forest trees growing naturally by the side of the public highway, where said public highway runs through cultivated lands, shall be allowed for in the same manner and on the same conditions as in the preceding section.

Trees growing
naturally.

Section 3. Any trees transplanted by the side of the public highway, as aforesaid, in the place of trees that have died, shall be allowed for in the same manner and on the same conditions as in the first section of this act.

Section 4. No person shall be allowed an abatement, as aforesaid, of more than one-quarter of his said annual road tax.

Limit of abate-
ment.

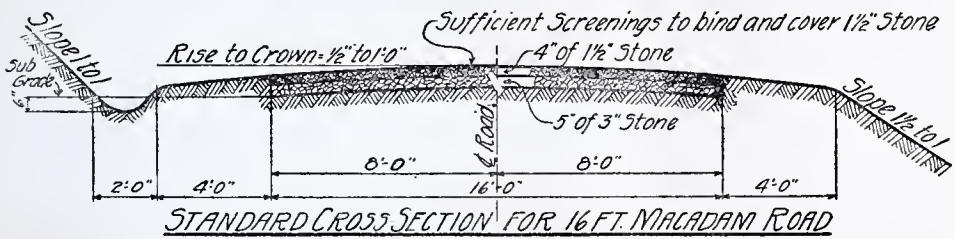
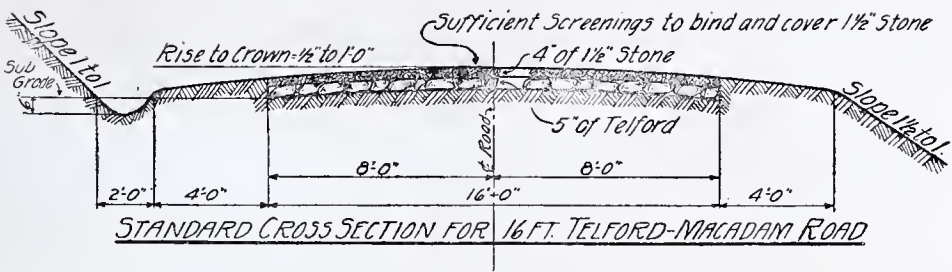
Section 5. Any person who shall cut down, kill or injure any living tree, planted or growing naturally as aforesaid, or who negligently or carelessly suffers a horse or other domestic animal, driven by or for him,

Negligence, etc.

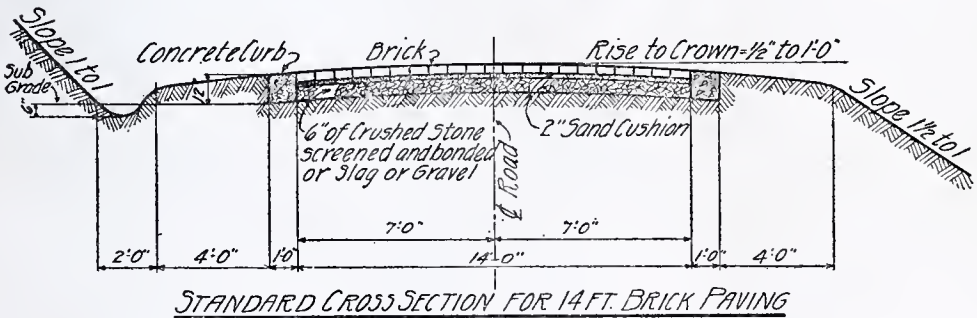
Fine.	to injure any of the trees hereinbefore mentioned, upon conviction thereof shall be subject to a penalty of not less than one dollar, nor more than five dollars,
Proviso.	with costs of suit, for each and every tree so cut down, killed, removed or injured: Provided, That if the defendant or defendants neglect or refuse to pay at once the penalty so imposed and costs, or shall not enter
Penalty.	sufficient bail for the payment of the same within ten days, he or they shall be committed to the common jail of the county in which the offense was committed, for a period of not less than one day for each dollar of pen-
Proviso.	alty imposed and costs: Provided, however, That the owner of the land upon which the trees are growing and upon which said abatement has been granted, may remove such trees, on condition that he will immediately plant and maintain another tree, or trees, in the place or places of those removed by him or refund to township said abatement, originally allowed for said tree or trees.
Disposition of fines.	Section 6. All moneys collected as a penalty in accordance with section five of this act, shall be paid to the supervisors of roads or boards of supervisors of roads, and form part of the road fund of the township in which the offense was committed.
Record to be kept.	Section 7. It shall be the duty of the supervisor of roads or the boards of supervisors of roads to keep a permanent record, in a book especially prepared for that purpose, and which book shall be the property of the township, of all trees upon which the said abatement, as hereinbefore mentioned, has been granted; and when any tree or trees have been removed, with or without the consent of the supervisors of roads or boards of supervisors of roads, the date thereof shall be distinctly entered in the said book.
Repeal.	Section 8. The act approved the second day of May, Anno Domini one thousand eight hundred and seventy-nine, entitled "An act to encourage the planting of trees along the roadsides in this Commonwealth," is hereby repealed.

Approved—The second day of July, Anno Domini one thousand nine hundred and one.

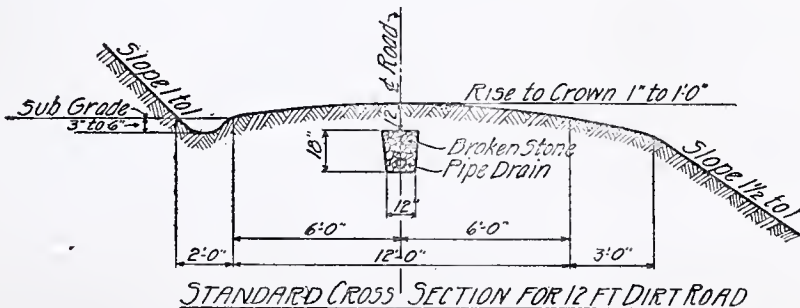
WILLIAM A. STONE.



Gravel of a good quality can be used in place of crushed stone

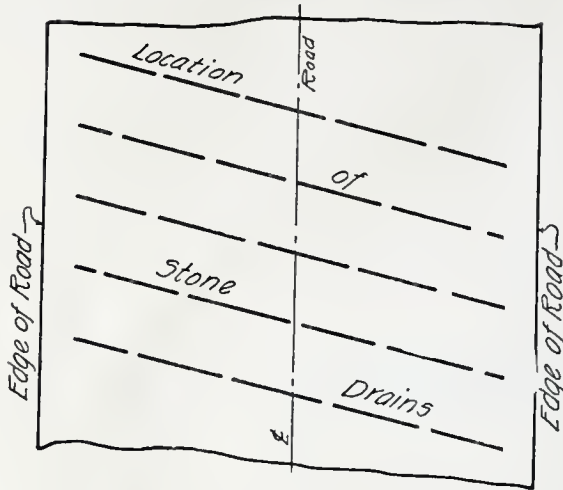


~NOTE~ No Ditches shall be over 24" in depth.

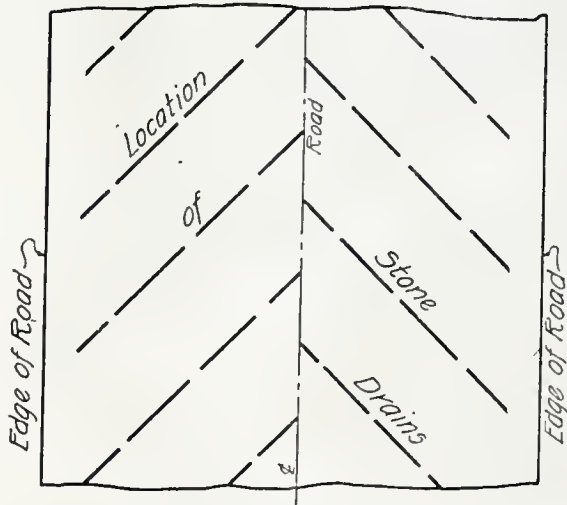


Scale = 0 1 2 3 4 5 6 7 8 Feet

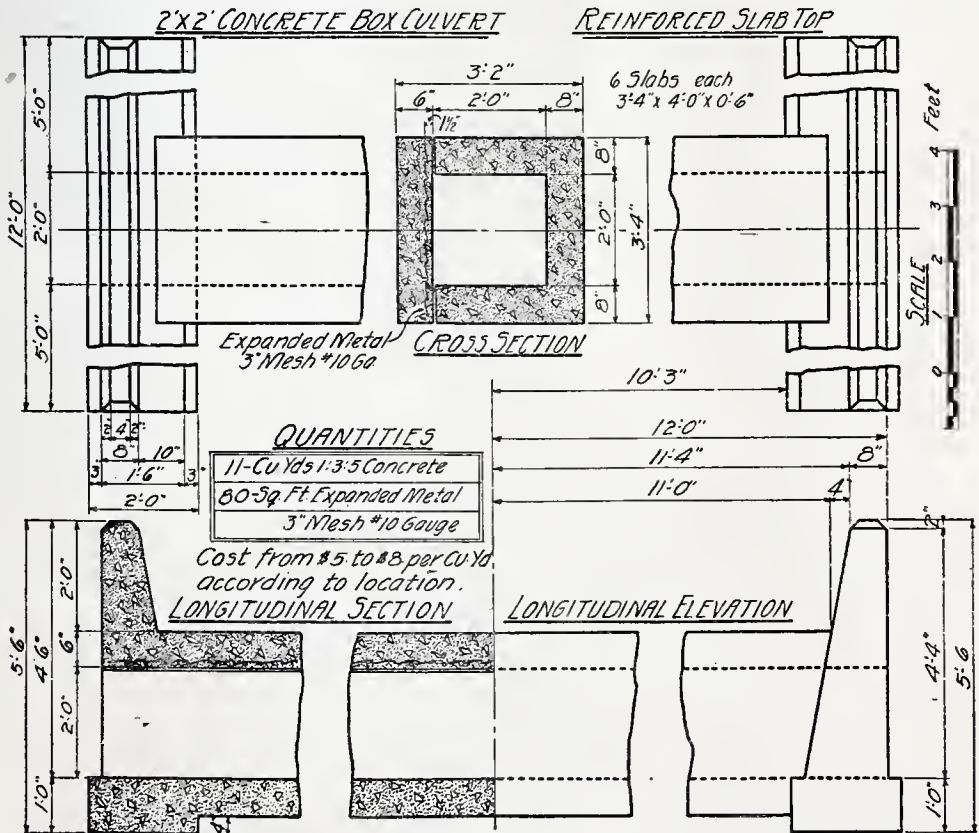
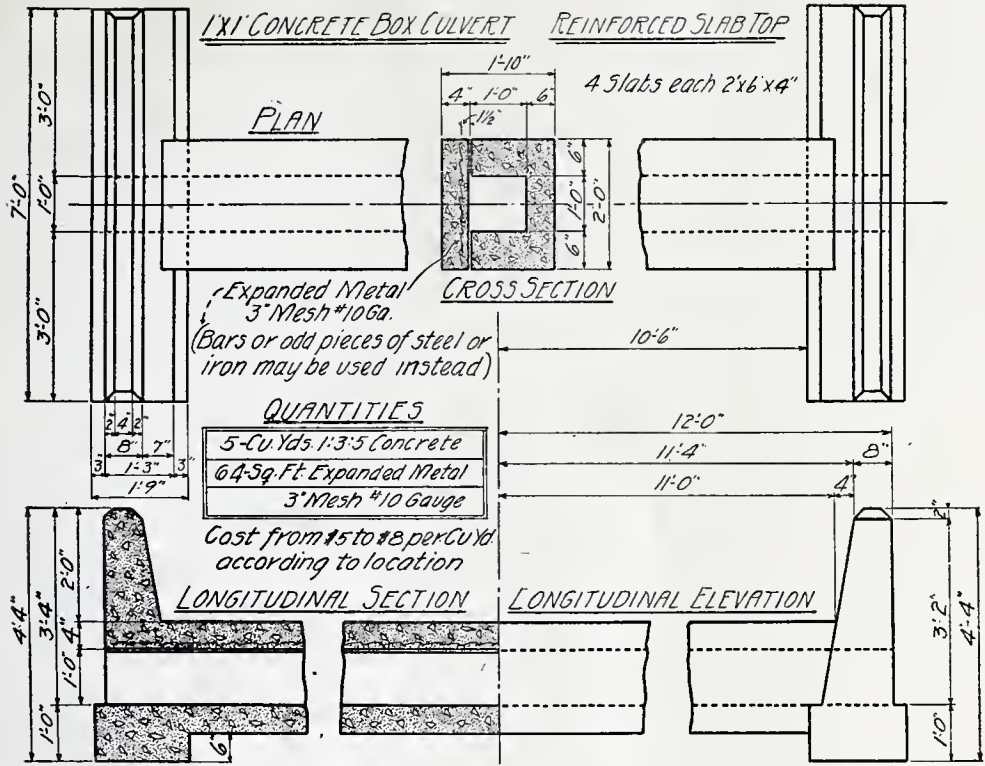
DIAGONAL STONE DRAINS

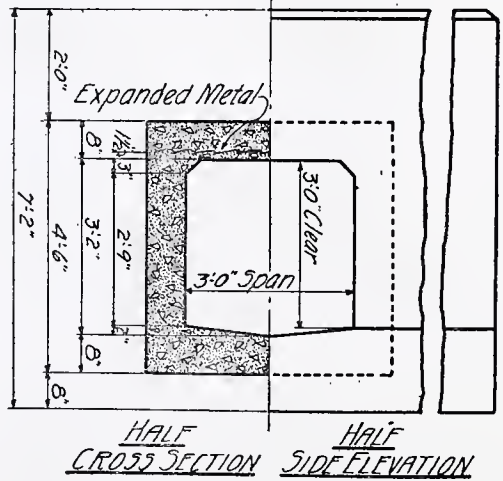
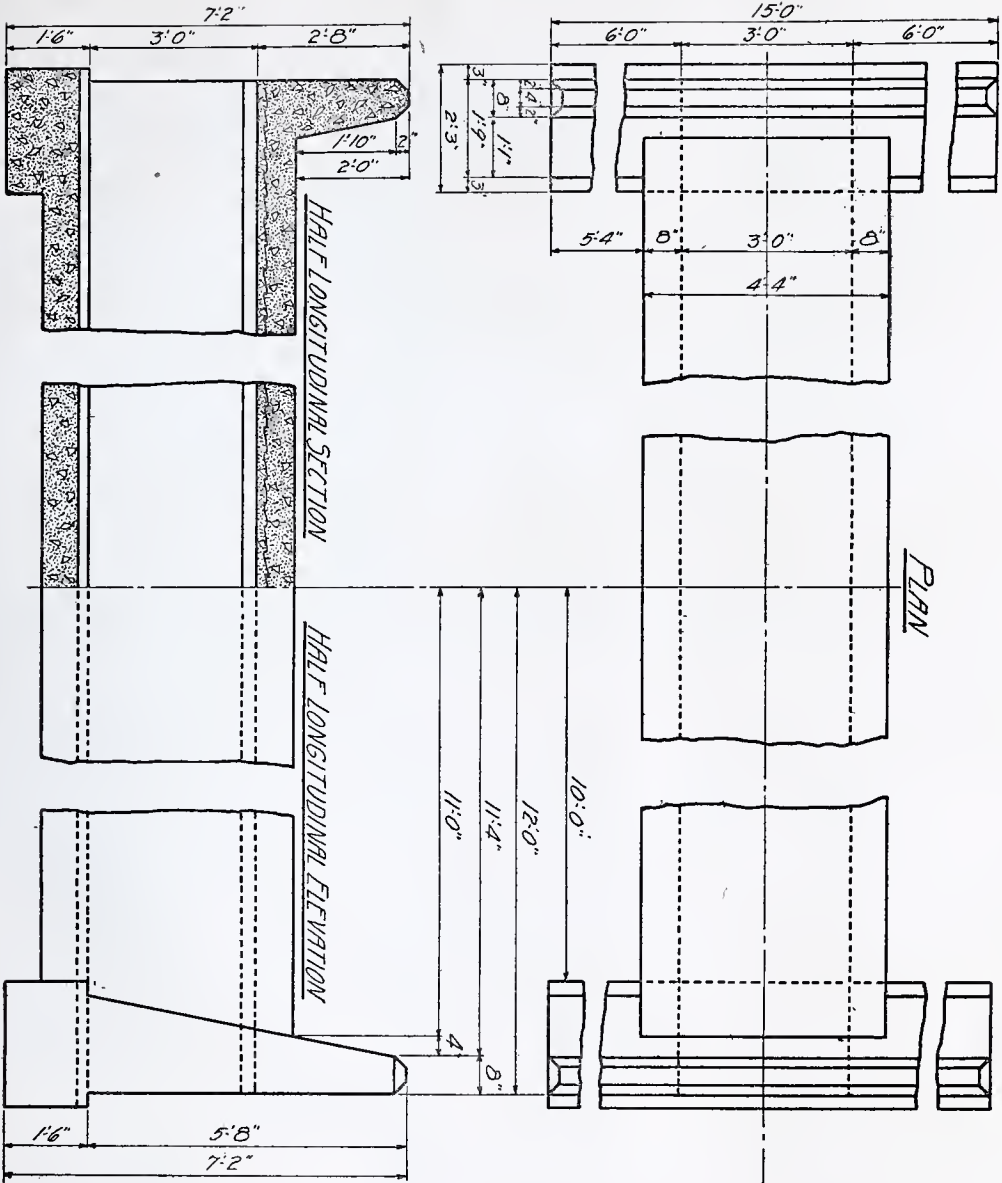


HERRINGBONE STONE DRAINS



~NOTE~Drains to be from 18" to 24" below surface of Road, to be constructed of broken stone with tile in bottom, or of broken stone with French Drain.





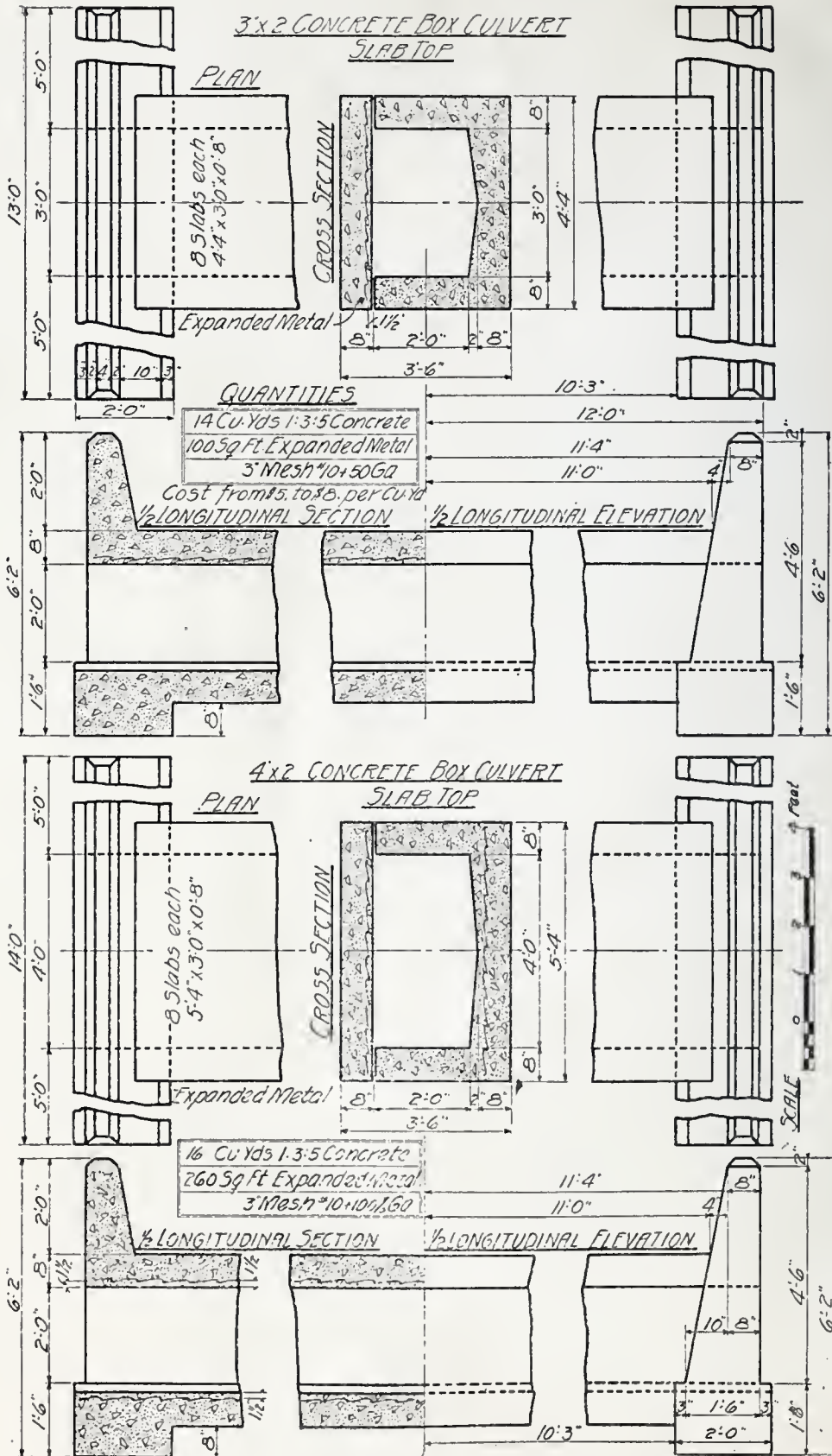
QUANTITIES

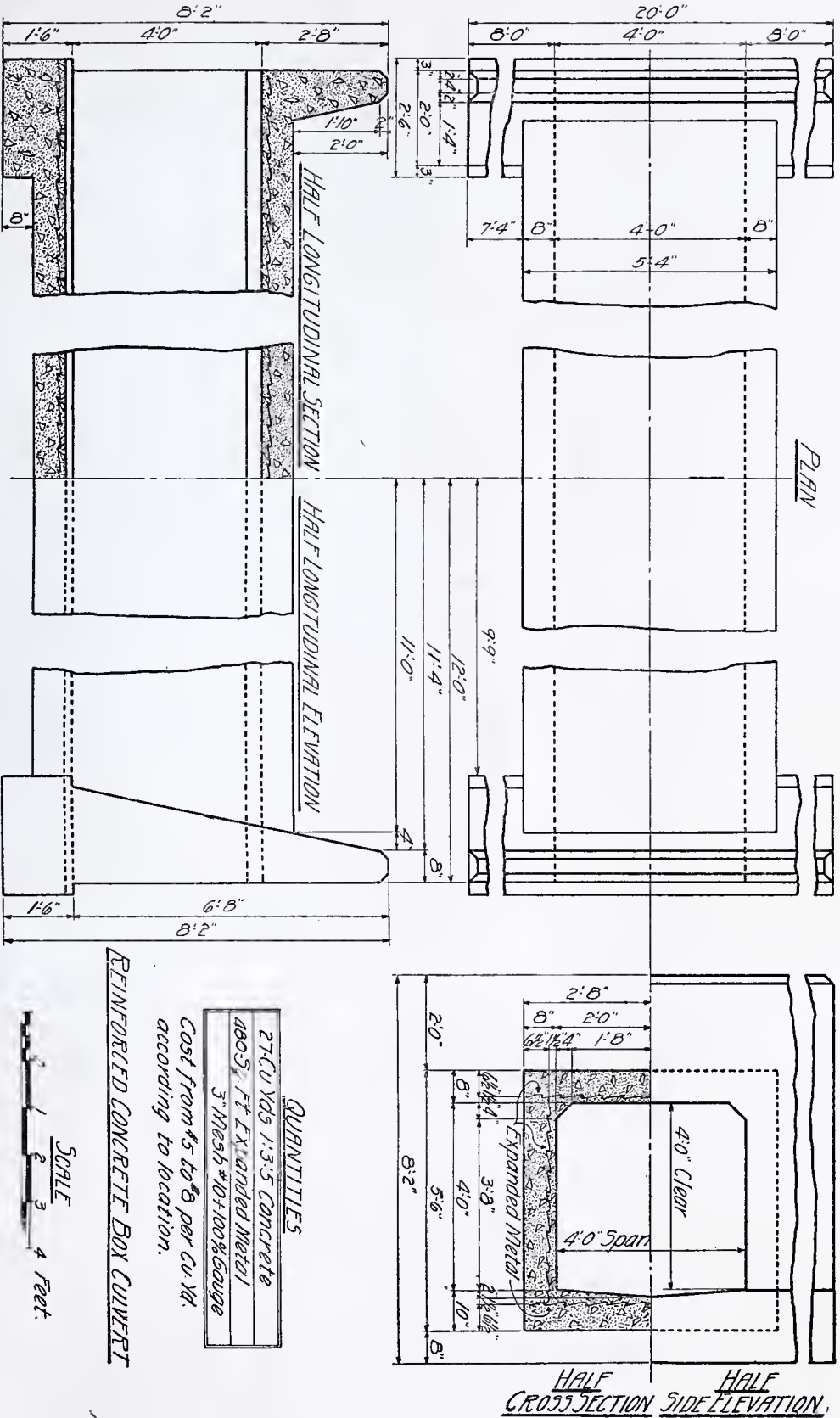
20-Cu Yds 1:3:5 concrete
100-3g Ft. Expanded Metal
3 Wesh #10 + 50 Gauge

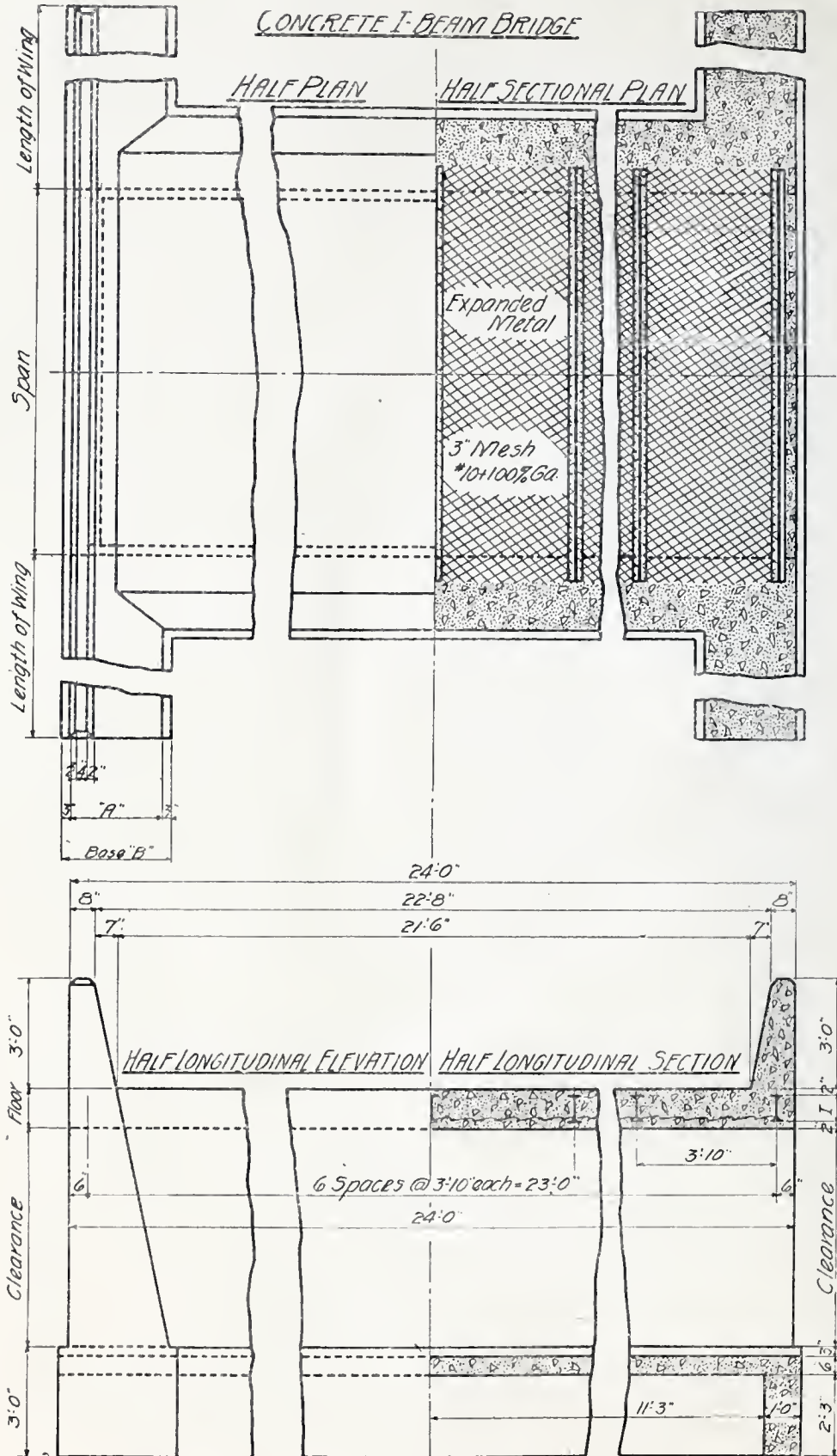
Cost from \$5 to \$6 per Cubic Yard according to location

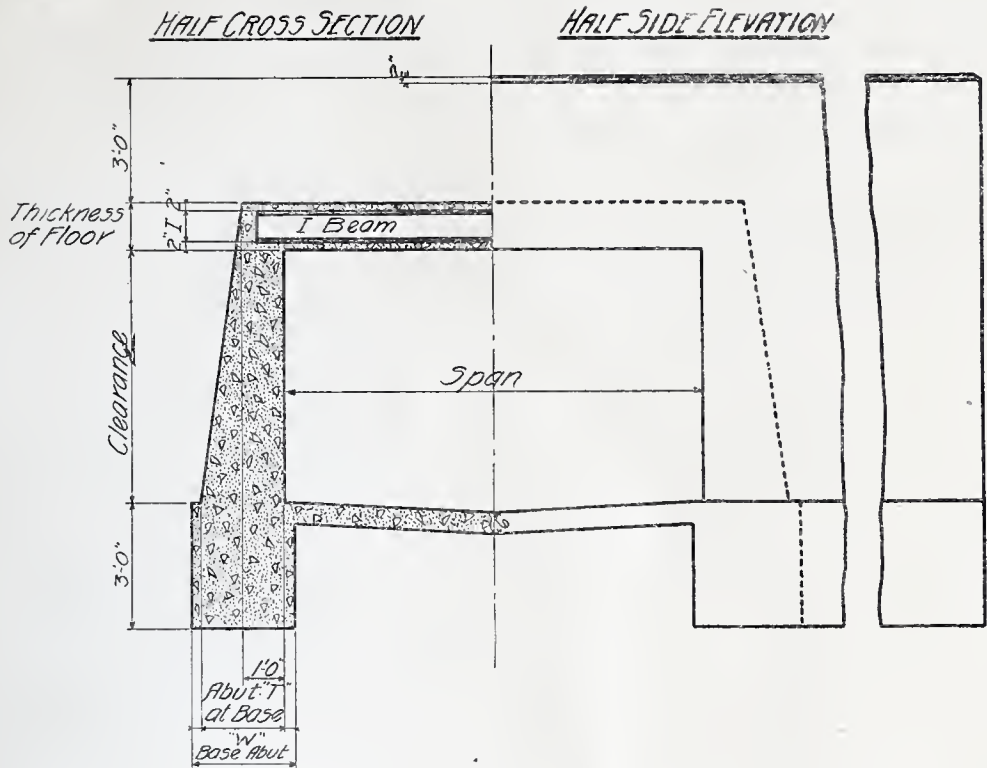
REINFORCED CONCRETE BOX CULVERT.











Approximate cost of 8'x4' Bridge = from \$300.00 to \$500.00

Approximate cost of 12'x6' Bridge = from \$575.00 to \$875.00

TABLE OF DIMENSIONS

Span Clearance	Width of Base of Abutment "W"	Thickness of Abutment at base "T"	Thickness of Floor	Width of Base of Wing "B"	Thickness of Wing at base "A"	Length of Wings	I-Beams				QUANTITIES		
							Number	Size I	wt per ft	Length	Cu Yds. 1:3:5 Concrete	Pounds I-Beams	Sq. Ft. Expanded Metal 3" Mesh #10 Hoops
8'x4'	2'3"	1'9"	12"	2'9"	2'3"	8'	7	8"	18*	9'4"	53	1176	215
10'x4'	"	"	13"	"	"	"	7	9"	21*	11'4"	57	1666	305
12'x4'	"	"	14"	"	"	"	7	10"	25*	13'4"	62	2333	360
8'x6'	2'6"	2'0"	12"	3'0"	2'6"	10'	7	8"	18*	9'4"	70	1176	215
10'x6'	"	"	13"	"	"	"	7	9"	21*	11'4"	84	1666	305
12'x6'	"	"	14"	"	"	"	7	10"	25*	13'4"	90	2333	360

